UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
CHOI, PETER H

ART UNIT	PAPER NUMBER
3623	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/05/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

	Application No.	Applicant(s)
	09/943,841	BADURA ET AL.
Office Action Summary	Examiner	Art Unit	
	Peter Choi	3623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 January 2007*.

2a)☒ This action is **FINAL.**   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,5-8,10,12-16 and 18-22* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,5-8,10,12-16 and 18-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Response to Amendment

1.   Claims 1, 8, and 14 have been amended.

2.   Claims 1-3, 5-8, 10, 12-16, and 18-22 are pending and have been examined on the merits discussed below.

Response to Arguments

3.   Applicant's arguments with respect to claims 1, 8, and 14 have been considered but are moot in view of the new ground(s) of rejection.

Response to Arguments

4.   In the previous Office Action mailed October 5, 2006, notice was taken by the Examiner that certain subject matter is old and well known in the art. Per MPEP 2144.03(c), these statements are taken as admitted prior art because no traversal of this statement was made in the subsequent response. Specifically, it has been taken as prior art that:

- Facsimile, e-mail, hard copy mail, and the Internet are communication means that are old and well known in the art capable of transmitting communications between a service provider and customer

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

6.   Claims 1-3, 5-8, 10, 12-16, and 18-22 are rejected under 35 U.S.C. 103(a) as

being unpatentable over Marsh et al. (U.S Patent #6,681,106) in view of Matthias Kalle

Dalheimer's "LinuxTag 2001 Proceedings: Virtual Companies" (hereinafter referred to

as Dalheimer).

As per claim 1, Marsh et al. teaches a method of selecting from a plurality of

modes of communication comprising:

(a)   inputting a first party's ability to communicate with a second party **(data**

regarding a given cellular account, subscriber, or group of subscribers if the

service is provided for a corporate customer, is provided by a carrier; optimator

process receives as input the various service plans, service plan packages, and

coverage areas offered by various carriers and that are associated with each

service plan package) [Column 7, lines 15-17, Column 16, line 60 – Column 17, line

1];

(b)   evaluating a cost effectiveness of a mode of communication of said modes

of communication based on said first party's ability to communicate **(MAMBA system**

provides an analysis of periodically loaded wireless service usage of a given

account or subscriber, and/or group of accounts or subscribers, and determines

whether or not that subscriber, or group of subscribers, is on the optimal

wireless service plan according to the particular subscriber's usage patterns

across a variable number of service billing periods) [Column 8, lines 54-62], said

evaluating comprising:

> (i)   inputting said first party's ability into a decision tree {although not
described as a "decision tree", decision points 1498, 1501, 1504, 1512, 1519, 1523,
1526, 1529, and 1532 determine whether current savings of different package
types are greater than max savings, performing the same functionality as a
"decision tree", by providing decision modules with consequences (if YES, then
save current savings; if NO, then move to next package type)} [Figures 34A, 35A];

> (ii)   determining a cost of establishing and maintaining said mode of
communication (calculate the cost of each service plan package combination for
the given user usage profile) [Column 8, lines 37-40];

> (iii)   determining a savings associated with said mode of communication
(if the savings if sufficient (efficiency > 1.x), where x is the historical percentage
savings, then change plans; determine how much package saves against current
base package cost) [Column 23, lines 50-52, Column 34, lines 65-67, Figure 35B]; and

> (iv)   comparing said cost to said savings to calculate a return on
investment associated with said establishing and said maintaining of said mode of
communication (relative attractiveness of a service plan instance is determined by
comparing it to the corresponding actual billed usage of the current service plan

for the given period; the specific measure, termed "efficiency", is calculated as
current plan costs/service plan instance estimated cost; if the efficiency factor is
greater than 1, then the service plan instance is more cost effective than the other
plan) [Column 18, lines 34-45];

> (c)   repeating said evaluating for a different mode of communication of said
modes of communication if said first party's ability does not match a mode of
communication of said modes of communication previously evaluated (MAMBA system
then repeats the logical steps (load data, create a calling profile, identify optimal
service plan options, make recommendations as to the best service plan and
options) in accordance with a predefined periodic basis) [Column 7, lines 31-33];
and

> (d)   implementing a mode of communication of said modes of communication
when said first party's ability matches a mode of communication of said modes of
communication (if there is a more optimal plan, then change plans) [Column 23,
lines 50-52].

Marsh et al. does not explicitly teach the step of considering modes of
communication including telephone, facsimile, hard copy mail, electronic mail, and on-
line communication arrangements. However, Dalheimer teaches the step of choosing
from amongst a plurality of common communication channels, including email, postal
mail, fax, telephone, video conferencing, IRC and IP telephony [Page 2].

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Marsh et al. to include the step of choosing from amongst a plurality of common communication channels, because doing so further expands the ability of Marsh et al. to enable selection of a best telecommunication service provider for a customer based on historical usage and costs.

As per claim 2, Marsh et al. teaches the method in claim 1, wherein a substance of said communication mode of communication comprise at least one of a purchase order and billing communications between a purchasing corporation and a supplier **{calling package being a communications service "ordered" and billed for; The Marsh system includes a transceiver configured to receive billing information associated with a subscriber of a telecommunications service, the subscriber being a purchasing "corporation" and the telecommunication service provider being the "supplier"}** [Abstract].

As per claim 3, Marsh et al teaches the method in claim 2, wherein said first party comprises said supplier **(telecommunications service providers)** and said second party comprises said purchasing corporation **(subscriber of a telecommunications service) {The subscriber constitutes a purchasing entity, and the service provider provides telecommunications service, making them a supplier of telecommunications service}** [abstract].

As per claim 5, Marsh et al teaches the method in claim 1, wherein said decision tree orders mode of communication that are evaluated by their cost effectiveness to the second party **{listing of historical prediction model efficiency of Plans A-E, along with Current Plan}** [Tables 7-8].

As per claim 6, Marsh et al. teaches the method in claim 1, further comprising before said implementing, performing a cost-benefit analysis **(calculate "efficiency" of each service plan instance to determine relative attractiveness)** with respect to a mode of communication matching said first parties ability [Column 18, lines 15-44].

As per claim 7, Marsh et al. teaches the method in claim 6, wherein said cost-benefit analysis compares the cost of establishing a matching mode of communication to the cost of a next mode of communication **{listing of historical prediction model cost of Plans A-E, along with Current Plan}** [Tables 7-8].

As per claim 8, Marsh et al. teaches a method of selecting from a plurality of modes of communication comprising:

(a)   inputting a first party's ability to communicate with a second party **(data regarding a given cellular account, subscriber, or group of subscribers if the service is provided for a corporate customer, is provided by a carrier; optimator process receives as input the various service plans, service plan packages, and coverage areas offered by various carriers and that are associated with each**

service plan package) [Column 7, lines 15-17, Column 16, line 60 – Column 17, line

1];

(b)   evaluating a cost effectiveness of a standard mode of communication

{The current service plan instance is taken to represent a "standard"

communication arrangement, and each of a plurality of alternative service plans

constitutes a "non-standard" communication arrangement} based on said first

party's ability to communicate **(MAMBA system provides an analysis of periodically**

loaded wireless service usage of a given account or subscriber, and/or group of

accounts or subscribers, and determines whether or not that subscriber, or group

of subscribers, is on the optimal wireless service plan according to the particular

subscriber's usage patterns across a variable number of service billing periods),

wherein said mode of communication comprises telephone **{wireless communication**

services} [Column 8, lines 54-62];

said evaluating comprising:

(c)   repeating said evaluating for a different mode of communication if said first

party's ability does not match a mode of communication previously evaluated **(MAMBA**

system then repeats the logical steps (load data, create a calling profile, identify

optimal service plan options, make recommendations as to the best service plan

and options) in accordance with a predefined periodic basis) [Column 7, lines 31-

33], wherein said non-standard mode of communication has a cost above said standard

mode of communication **{Alternative (i.e. "non-standard") communication**

arrangements are implemented when proven to be more "efficient" (calculated by

current plan costs/service plan instance estimated cost), and yield more cost

savings than the current communication arrangement}, and wherein said evaluating

comprises:

(i)   inputting said first party's ability into a decision tree {although not

described as a "decision tree", decision points 1498, 1501, 1504, 1512, 1519, 1523,

1526, 1529, and 1532 determine whether current savings of different package

types are greater than max savings, performing the same functionality as a

"decision tree", by providing decision modules with consequences (if YES, then

save current savings; if NO, then move to next package type)} [Figures 34A, 35A];

(ii)   determining a cost of establishing and maintaining said mode of

communication (calculate the cost of each service plan package combination for

the given user usage profile) [Column 8, lines 37-40];

(iii)   determining a savings associated with said mode of communication

(if the savings if sufficient (efficiency > 1.x), where x is the historical percentage

savings, then change plans; determine how much package saves against current

base package cost) [Column 23, lines 50-52, Column 34, lines 65-67, Figure 35B]; and

(iv)   comparing said cost to said savings to calculate a return on

investment associated with said establishing and said maintaining of said mode of

communication (relative attractiveness of a service plan instance is determined by

comparing it to the corresponding actual billed usage of the current service plan

for the given period; the specific measure, termed "efficiency", is calculated as

current plan costs/service plan instance estimated cost; if the efficiency factor is

greater than 1, then the service plan instance is more cost effective than the other

plan) [Column 18, lines 34-45];

  (d) performing a cost-benefit analysis with respect to a mode of

communication matching said first parties ability **(calculate "efficiency" of each**

service plan instance to determine relative attractiveness) [Column 18, lines 15-44];

and

  (e) implementing a communication arrangement when said first party's ability

matches a mode of communication **(if there is a more optimal plan, then change**

plans) [Column 23, lines 50-52].

  Marsh et al. does not explicitly teach the evaluation and consideration of different

modes of communication, including facsimile, e-mail, hard copy mail, and at least one

on-line communication arrangement.

  However, Official Notice is taken that facsimile, e-mail, hard copy mail, and the

Internet are communication means that are old and well known in the art capable of

transmitting communications between a service provider and customer. Marsh et al.

evaluates the cost effectiveness of a plurality of service providers and service plans to

determine the optimal communications plan based on the needs of the user. Improving

the quality of service and the value of services received by a subscriber, and enabling

selection of a best telecommunications service are goals of Marsh et al. [Column 2,

lines 53-55, abstract]; therefore, it would have been obvious to one of ordinary skill in

the art at the time of invention to modify the teachings of Marsh et al. to consider

facsimile, e-mail, hard copy mail, and the Internet as doing so would expand the

capabilities of Marsh et al. to include alternative modes of communication, thereby

validating the analysis performed by Marsh et al., as it now includes additional modes of

communication to consider to recommend to the user in order to improve the quality and

cost effectiveness of the value of services received.

As per claim 21, Marsh et al. does not explicitly teach wherein said evaluating

and said implementing of said mode of communication comprises evaluating and

implementing at least one of telephone, facsimile, e-mail, hard copy mail, and at least

one on-line communication arrangement.

However, Official Notice is taken that facsimile, e-mail, hard copy mail, and the

Internet are communication means that are old and well known in the art capable of

transmitting communications between a service provider and customer. Marsh et al.

evaluates the cost effectiveness of a plurality of service providers and service plans to

determine the optimal communications plan based on the needs of the user. Improving

the quality of service and the value of services received by a subscriber, and enabling

selection of a best telecommunications service are goals of Marsh et al. [Column 2,

lines 53-55, abstract]; therefore, it would have been obvious to one of ordinary skill in

the art at the time of invention to modify the teachings of Marsh et al. to consider

facsimile, e-mail, hard copy mail, and the Internet as doing so would expand the

capabilities of Marsh et al. to include alternative modes of communication, thereby

validating the analysis performed by Marsh et al., as it now includes additional modes of

communication to consider to recommend to the user in order to improve the quality and

cost effectiveness of the value of services received.

Claims 14-16 and 18-20 recite limitations already addressed by the rejection of

claims 1 and 5-7 above; therefore, the same rejections apply.

As per claim 14, the moving average monthly bill analysis (MAMBA) system

utilized by Marsh et al. is implemented in software, hardware, or a combination thereof

[Column 4, line 41 – Column 5, line 45], thus providing a program storage device

readable by machine tangibly embodying a program of instructions executable by the

machine to perform the steps of claims 1 and 5-7 as discussed above.

Claims 10, 12, 13, 15, 16, and 22 recite limitations already addressed by the

rejection of claims 2, 3, and 21 above; therefore, the same rejections apply.

Conclusion

7.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

Noy (U.S Patent #6,795,851) teaches the step of selecting the optimal (e.g., most efficient and stable) communication protocol.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Choi whose telephone number is (571) 272 6971. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on (571) 272-6729. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

PC

March 23, 2007